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INTRODUCTION.

This REVIEW contains a general summary of the meteorological conditions which prevailed over the United States and Canada during April, 1886, based upon the reports from the regular and voluntary observers of the Signal Service and from co-operating state weather services.

Descriptions of the storms which occurred over the north Atlantic Ocean during the month are also given, and their approximate paths shown on chart i. In tracing the centres of the paths of these storms data from the reports of one hundred and eighty-eight vessels have been used.

Over the Atlantic, high pressures and fair weather prevailed until the 20th, followed by low pressures and stormy weather continuing to the close of the month. Pressures below 29.00 were reported on the 1st, 17th, and 30th.

Icebergs and field ice drifted into the Atlantic in large quantities after the 15th, reaching southward to the latitude of N. 42°, and one iceberg was observed as far eastward as W. 30°; this is the most eastern limit of icebergs ever reported to this office during the month of April.

The most violent storm of the month was the hurricane of March 31st to April 1st, of which very full reports, furnished by ship captains, will be found under the heading "North Atlantic storms."

Seven areas of low pressure have been traced over the United States during April, 1886, the average number for April during the last thirteen years being 10.6; the largest number for April in the above period is eighteen, in 1879, and the least is seven, in 1881 and 1886. Low area number ii for April, 1886, was the severest storm of the month. It was especially severe in the Lake region and on the New England and middle Atlantic coasts, and caused much damage to shipping and other interests. The tides along the New England and middle Atlantic coasts were unusually high during the prevalence of this storm.

The high mean pressure over New England and the middle Atlantic states, as shown on chart ii, is worthy of note, the departures above the normal in these districts ranging from .20 to .26.

The mean temperature is above the normal over the northern districts east of the Rocky Mountains, the departures being greatest in the extreme northwest, where they range from 6° to 8°. The temperature is below the normal over the southern districts, the departures being most marked in Florida.

The precipitation is in excess of the normal over the middle Atlantic states, Lake region, and generally in all districts west of the Mississippi River, with the exception of the west Gulf states and north Pacific coast. The most marked deficiencies occurred in the south Atlantic states and Tennessee, and the greatest excess occurred in the extreme northwest and middle Pacific coast region.

The destructive freshets in the south Atlantic and east Gulf states at the beginning of the month were due to the heavy rains which fell during the latter part of March, there being a marked deficiency in the precipitation for April in that region.

The tornado which occurred in Minnesota on the 14th during the prevalence of low area iv was unusually destructive to life and property.

Chart vi exhibits curves representing the results of simultaneous observations of the electrometer at certain stations, as prepared by Prof. T. C. Mendenhall, Office of the Chief Signal Officer. Under the heading "Atmospheric electricity," will be found notes, by Professor Mendenhall, relating to the chart, and to the subject of observations of the electrometer.

In the preparation of this REVIEW the following data, received up to May 20, 1886, have been used, viz., the regular tri-daily weather-charts, containing data of simultaneous observations taken at one hundred and thirty-three Signal Service stations and twenty-one Canadian stations, as telegraphed to this office; one hundred and sixty-three monthly journals and one hundred and sixty monthly means from the former, and twenty-one monthly means from the latter; two hundred and ninety-five monthly registers from voluntary observers; sixty-four monthly registers from United States Army post surgeons; marine records; international simultaneous observations; marine reports through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs furnished by the publishers of "The New York Maritime Register;" monthly weather reports from the New England Meteorological Society, and from the local weather services of Alabama, Colorado, Georgia, Illinois, Indiana, Minnesota, Missouri, Nebraska, Ohio, and Tennessee, and of the Central Pacific Railway Company; trustworthy newspaper extracts, and special reports.

ATMOSPHERIC PRESSURE.

[Expressed in inches and hundredths.]

The mean atmospheric pressure for April, 1886, determined from the tri-daily telegraphic observations of the Signal Service, is shown by isobarometric lines on chart ii.

The mean pressure is greatest over New England and adjacent portions of the Canadian Provinces, lower lake region, and the middle Atlantic states, the highest monthly barometric means (30.13) occurring at Albany, New York; New London, Connecticut; and Sydney, Nova Scotia. Westward and southwestward of the districts named the mean pressure decreases until reaching the Pacific coast region, where a slight rise in the barometric means is noted. The area of minimum pressure occupies the middle and southern Rocky Mountain districts, where the means are generally below 29.9, there being a small area comprising portions of Arizona and New Mexico enclosed by the isobar for 29.85. The lowest barometric mean reported is 29.83 for Fort Thomas, Arizona.

A comparison of the charts exhibiting the mean pressure for the months of March and April, 1886, shows that at stations along the Mississippi from the Gulf to Minnesota the means either coincide or differ but slightly. To the eastward of the Mississippi a marked increase in the mean pressure for April

occurs, while to the westward a decrease nearly as great is shown. The most marked increase occurs over the Canadian Maritime Provinces where, at some stations, it exceeds .30. To the westward of the Mississippi the pressure is, at all stations, lower than for the preceding month, the difference being greatest in the central Rocky Mountain region, where it ranges from .15 to .22.

The departures from the normal pressure at the various Signal Service stations are given in the tables of miscellaneous meteorological data, and on chart iv they are shown by lines connecting stations of equal departure. From this chart it will be seen that the normal line extends from the northern boundary of the United Sates at the ninety-second meridian in a south-southwesterly direction, striking the Mexican border at about 10° west of the above-named meridian. To the eastward of the line mentioned the pressure is above the normal, and to the westward it is below. The deficiencies are not marked (nowhere exceeding .07), while over New England and the Maritime Provinces the excess is unusually large, amounting to .20 or more at the most easterly stations.

BAROMETRIC RANGES.

The monthly barometric ranges at the various Signal Service stations are also shown in the tables of miscellaneous data; they are greatest in the Lake region and on the middle Atlantic coast, and least in New Mexico, southwestern Texas, Arizona, and southern California.

The following are some of the extreme monthly ranges:

Greatest.		Least.	
	Inches.		*Inches.*
Mackinaw City, Michigan	1.42	Fort Thomas, Arizona	0.38
Alpena, Michigan	1.34	Fort Grant, Arizona	0.38
Escanaba, Michigan	1.19	Fort Stanton, New Mexico	0.42
Philadelphia, Pennsylvania	1.18	Fort Apache, Arizona	0.45
Port Huron, Michigan	1.14	Fort Davis, Texas	0.45
Baltimore, Maryland	1.14	San Diego, California	0.45
Atlantic City, New Jersey	1.13	Los Angeles, California	0.46
Sandy Hook, New Jersey	1.13	Santa Fé, New Mexico	0.50
Block Island, Rhode Island	1.13	El Paso, Texas	0.51

AREAS OF HIGH PRESSURE.

Eight areas of high pressure appeared within the limits of the stations of observation during the month of April, 1886. Four of these areas reached the Atlantic and were attended by marked changes in the atmospheric conditions within the districts over which they passed; one appeared on the north Pacific coast and was traced eastward to the Lake region and thence to the south Atlantic coast; the fifth, and last, area observed remained almost stationary over Oregon and Washington Territory from the 23d to the 27th, when it disappeared by a gradual decrease of pressure without apparent movement of translation. One area approached from the region north of the Saint Lawrence Valley and passed over the north Atlantic, after which it was apparently re-enforced and moved southwestward and thence westward over New England and the Lake region before it finally disappeared to the eastward of the middle Atlantic coast.

The following are detailed descriptions of the movements of each of the above areas, with a brief account of the weather changes attending each:

I.—This area extended over the upper Missouri valley on the first day of the month, the pressure being greatest far to the north of Dakota. A severe storm was at that time central north of Lake Huron, the pressure at Mackinaw City, Michigan, being 29.05, while in Manitoba it was 30.32. This distribution of pressure continued until the 3d, the centre of the high-pressure area remaining north of Minnesota, while the storm over the Lake region passed rapidly to the northeast. The barometer had risen to 30.53 in Manitoba, where the temperature was 10° below zero on the morning of the 3d. The winds were northerly over the central valleys and the Lake region, and a depression was forming in the Rio Grande Valley—or this high area had apparently forced a depression from the northern plateau southeastward until it reached the west Gulf states. This high area moved directly south during the 4th, 5th, 6th, and 7th, and on the last-named date, at 7 a. m., it had reached western Missouri. During the southerly movement the storm previously referred to developed and passed along the Atlantic coast to the northeast, and on the 7th it had reached the middle Atlantic coast, and was, therefore, immediately to the east of the high area. These conditions were followed by an easterly movement of the high and low areas, both inclining to the northeast, and the high area apparently followed the low. The former was central in Tennessee on the 8th, in Virginia on the 9th, and it had disappeared to the east over the Atlantic by the morning of the 10th.

II.—On the 9th, the date of disappearance of the high area previously described, this area was observed to the north of Dakota. It was at no time within the limits of the stations of observation, but passed eastward north of the Lake region during the 10th and 11th. On the morning of the 11th this area of high pressure extended over the northeastern districts, it being central near Quebec, Province of Quebec, where the pressure was 30.62. The barometer continued to rise within the limits of this area as it passed over northern New England, and the maximum pressure was observed at stations in Nova Scotia on the 12th. The reports indicate that there was a gradual increase of pressure within this high area from the 9th, when first observed north of Minnesota, until it disappeared to the east of New England. During the transit of this high area the temperature was below freezing at the northern stations near the track of the centre of greatest pressure, the lowest temperature, —19°, being observed at Rockliffe, Province of Ontario, on the morning of the 11th.

III.—The storm which developed on the central Pacific coast on the 10th moved slowly northeast and was apparently forced to the north by this area of high pressure, which extended over the greater portion of the eastern half of the continent on the 13th. It was central north of the Lake region and moved eastward to the north Atlantic coast as the storm from the Pacific coast advanced over Dakota. During the 15th it moved southward with increasing pressure, causing strong northeast winds along the Atlantic coast as far south as Florida. These conditions continued during the 16th and 17th, but there was a slow westerly movement of the high area observed. The centre passed to the east of the coast line on the 18th, and was in New York state at 7 a. m. of that date. The 3 and 10 p. m. reports of the 18th placed the centres of this area in western New York and near Mackinaw City, Michigan, respectively. The northerly movement continued until the 3 p. m. report of the 19th, when its course changed, first to the south, and finally to the east, passing over the Lake region, and thence to the Atlantic coast, attended by decreasing pressure. Traces of this high area were observed in the eastern districts until the 22d—nine days after its first appearance to the north of Lake Superior. The unusual movement to the northwest after having reached the Atlantic coast may be considered in connection with the unusual course of the area of low pressure which disappeared to the north of Dakota.

IV.—This area of high pressure was first observed on the north Pacific coast on the 18th. The high area previously referred to extended over the eastern half of the continent, and a depression was forming in Arizona while a trough of low pressure extended northward from the Rocky Mountain region to Dakota. This high area passed directly eastward to the Lake region and extended southward over the central valleys, leaving the barometer low over the southern plateau region. It extended eastward and formed a part of high area number iii on the 21st and 22d, and disappeared as a clearly defined high area on the latter date. It was followed by a storm from the plateau region which probably resulted from the depression to the south of Arizona.

V.—This area of high pressure did not pass to the eastward of the Rocky Mountains. It appeared on the north Pacific coast on the 21st, and the pressure remained high in that

region until the 26th when it fell below the normal. On the last day of the month a sixth area of high pressure appeared in this region, when the stations to the south in the Rio Grande and Colorado valleys indicated the presence of a low area over northern Mexico.

AREAS OF LOW PRESSURE.

Chart number i exhibits tracks of the centres of the areas of low pressure as traced from the tri-daily telegraphic reports. It will be seen from this chart that seven areas of low pressure have been traced. The most marked feature of the chart, when compared with previous storm-track charts, is that the storms of this month had their origin in the Rocky Mountain regions, or to the westward, and only one of the storms traced reached the Atlantic coast. They moved with a low average velocity and their general direction was more to the north than the general course of areas of low pressure for the month of April.

The following table shows the latitude and longitude in which each area was first and last observed, and the average rate of movement in miles per hour:

Low areas.	First observed.		Last observed.		Average velocity in miles per hour.
	Lat. N.	Long. W.	Lat. N.	Long W.	
	° ′	° ′	° ′	° ′	
No. I			95 00	65 00	
II	42 00	114 00	41 00	72 00	25.0
III	40 00	102 00	44 00	82 00	15.0
IV	38 00	125 00	54 00	100 00	16.0
V	40 00	105 00	43 00	82 00	30.0
VI	36 00	103 00	54 00	92 00	20.0
VII	40 00	99 00	42 00	91 00	12.0

Mean hourly velocity, 19.7 miles.

I.—This storm was traced from the Southwest over the Ohio Valley to a point north of Michigan, in the March REVIEW. On the morning of April 1st it was central near the east portion of Lake Superior, the barometer being unusually low at the centre and severe gales were reported from the lake stations. This storm moved rapidly to the northeast during the 1st, and was followed by a high area and cold wave from the region north of Minnesota and Dakota. The pressure increased within the storm when it passed from the Lake region, and it apparently lost energy, although strong westerly winds occurred at a number of the northeastern stations on the 2d.

II.—The 10 p. m. report of the 1st indicated the presence of an area of low pressure over the middle plateau region. The succeeding reports of the 2d and 3d serve to trace this disturbance southeastward to the Rio Grande Valley, where it was clearly defined as a storm which would probably pass over the Atlantic coast districts with increasing energy. The centre of this storm was near the twenty-fifth parallel on the morning of the 4th. It moved rapidly over the Gulf on the 4th, passing south of New Orleans, and thence followed the Atlantic coast, passing inland over Georgia, central North Carolina, and eastern Virginia, reaching its maximum energy on the middle Atlantic coast. This storm, after passing to the east of the Gulf coast, was followed by a severe "norther" in Texas, the wind reaching a velocity of forty-six miles per hour at Indianola on the 4th. The pressure decreased rapidly at the centre of this disturbance during the northeasterly movement over the south Atlantic states, attended by very heavy rains and dangerous gales, but the storm did not attain its maximum energy until the centre was near Philadelphia, Pennsylvania, during the afternoon of the 6th. The wind reached a maximum velocity of sixty miles per hour from the east at Sandy Hook, New Jersey, when the centre was near that station. This storm remained almost stationary in New York state during the 7th, apparently moving westward and then slightly to the south before moving eastward along the southern New England coast. It was last located as central south of Long Island at midnight of the 7th, but the succeeding reports indicated that the northeast movement continued after the centre passed off the coast and it was probably central east of Nova Scotia at the 10 p. m. report of the 8th.

The following notes relative to this storm are from the reports of Signal Service observers:

Detroit, Michigan: a furious northeasterly gale and heavy snow storm occurred on the 6th, completely blockading the streets and filling railroad cuts in this vicinity. The storm was unprecedented in fierceness and amount of snowfall.

Port Huron, Michigan: the gale of the 6th was accompanied by a heavy snow storm, the heaviest of the season. The high wind caused the snow to drift so badly that travel on the streets was very difficult. All trains were late; schools were closed and business was suspended.

Cleveland, Ohio: a heavy snow storm, accompanied by high winds, occurred on the 5th and 6th.

Toledo, Ohio: on the morning of the 5th the worst snow storm of the season set in, and before daylight nearly seven inches of snow had fallen. The snow was accompanied by a high wind which caused it to drift and rendered the streets nearly impassable. Business was practically suspended and the streets were entirely deserted.

Erie, Pennsylvania: a storm, reaching a maximum velocity of thirty-six miles, prevailed during the night of the 5th and morning of the 6th. The wind, rain, and snow combined made the storm one of the severest experienced here for many years. Travel was greatly impeded, telegraph poles and large trees being thrown down.

Pittsburg, Pennsylvania: the storm which set in on the 5th and continued through the 6th was the worst storm of the winter. Rain and snow fell without interruption for twenty-four hours. The river rose at all points and a flood was apprehended. Railroad travel was impeded on nearly all lines entering the city. The heavy rains loosened the earth which rests in such a threatening manner in many railroad cuts. On the Pan Handle Road, between this city and Mansfield, Pennsylvania, fifteen land slides were reported, covering the track with rocks, trees, and earth.

Buffalo, New York: the most severe northeasterly storm of many years passed over this city on the 6th. It commenced at 3.20 a. m. and was accompanied by heavy snow. During the gale a house in process of construction was blown down. The ice in the lake was driven far from the shore.

Rochester, New York: on the morning of the 6th a very severe gale occurred. At Charlotte, near Rochester, the lower docks were flooded; the tracks of the New York Central and Hudson River Railroads were undermined and covered with water to a depth of ten inches. Several buildings were blown down and some damage done to shipping.

Eastport, Maine: during the night of the 6th and morning of the 7th a storm of great severity prevailed at this place. The wind reached a maximum velocity of seventy miles per hour from the northeast. This storm is considered by mariners to have been the severest known in this region since the "Saxby" gale of 1869. Several vessels were damaged and driven ashore. The steamer "United States," lying in the market dock, broke from her anchorage, was driven ashore and damaged. Reports show that this gale, accompanied in places by sleet, was very general along the coasts of New England and the middle Atlantic states. The tides were unusually high; at a number of places large quantities of wreckage drifted ashore.

The heaviest snows of the month occurred during this storm, reports of which will be found under the heading "Snow."

III.—This area of low pressure passed eastward from the north Pacific coast, but the centre could not be definitely located until the morning report of the 8th, when it was enclosed by an isobar of 29.7 in the central Rocky Mountain region, but the preceding report indicated the advance of a low area over the north and central plateau regions. The direction of movement was to the southeast until the centre passed over Arkansas on the 10th, and this movement was in conjunction with a similar movement of the extended high area which continued to the northeast of this storm. The course changed to the northeast on the 10th, and the storm lost energy and disappeared within the limits of the stations of observation by a gradual increase of pressure. During the advance of this depression, general rains fell in the states of the central valleys and in the Lake region, the greatest rainfall occurring in the Ohio Valley.

IV.—This storm may be traced to the central California coast where it appeared on the 10th. It moved eastward over California and Nevada on the 11th, causing general rains on the Pacific coast as far south as San Diego, California, and Yuma, Arizona. The rain continued on the southern California coast until the 13th, and in central California until the 17th. This storm moved directly eastward to western Colorado; thence it moved slowly northeastward over Dakota, causing general rains and severe local storms in the regions west of the upper Mississippi valley. On the afternoon of the 14th

this area of low pressure was central near, and to the west of, Bismarck, Dakota, at the time of the occurrence of the destructive tornadoes in Minnesota. Strong south to east winds were reported in eastern Minnesota at 3 p. m. of that date, while in western Minnesota the winds were from the south and blowing at the rate of from thirty to thirty-five miles per hour. This storm passed directly north from Dakota and disappeared on the 15th, the centre being located far to the north of Manitoba at midnight of that date.

V.—This area of low pressure is marked as central in Colorado on the morning of the 22d, but the tri-daily reports of the 19th, 20th, and 21st indicated that it originated to the south of Arizona the depression moving first to the north over the central plateau regions. It passed directly northeast from Colorado and was central in eastern Dakota at the 10 p. m. report of that date. After reaching the latitude of N. 45° the course changed to the east and it passed over the upper lake region with decreasing energy, the pressure increasing within the enclosed area until it was apparently replaced by the advance of a high area from the north. When this storm was passing over the Lake region a more marked depression appeared to the northward and passed over the lower Saint Lawrence valley. The area of high pressure which followed this last named storm caused the area traced as number iii to disappear before reaching the Atlantic coast. Although this storm cannot be traced to the eastward by isobars drawn for each tenth of an inch of pressure, the severe local storms which occurred in the middle Atlantic states on the 24th indicated that it passed off the middle Atlantic coast, moving slightly to the south of east.

VI.—The tri-daily reports of the 23d indicated the advance of a low area from the Rio Grande Valley but this storm was not clearly defined as an area of low pressure until the afternoon of the 24th, when it was central in northeastern New Mexico. It moved northeastward of Kansas, Nebraska, and Minnesota during the 25th and 26th, attended by heavy rains and severe local storms in the northwestern states, the disturbance reaching its maximum force when central in northwestern Wisconsin on the 26th. From northern Wisconsin it moved directly north, passing over Lake Superior, and after apparently circling to the westward it disappeared north of Manitoba on the 27th.

VII.—This low area formed over the middle slope on the 27th and moved slowly eastward over Kansas and Iowa during the 28th and 29th, the depression being trough-shaped and extending southward to the Gulf coast. The northern portion of this low area apparently disappeared after passing to the east of the upper Mississippi valley, although a slight disturbance may be traced to the south Atlantic coast during the 30th, as indicated by the storm track traced on chart i. Severe local storms occurred in the Gulf States on the 28th, apparently due to a secondary depression which formed in the southwest and south. These storms were especially severe in the southern portion of the east Gulf States on the 28th and 29th.

NORTH ATLANTIC STORMS DURING APRIL, 1886.

[Pressure in inches and millimetres; wind-force by Beaufort scale.]

The paths of the depressions that have appeared over the north Atlantic Ocean during the month are determined, approximately, from international simultaneous observations furnished by captains of ocean steamships and sailing vessels; abstracts of ships' logs and other data collected by the Signal Service agencies at the ports of New York, Boston, and Philadelphia; reports received through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs furnished by the proprietors of the "New York Maritime Register," and from other miscellaneous data, received at this office up to May 21, 1886.

Of the thirteen depressions traced during the month only one, number 3, is a continuation of an area of low pressure traced on the North American continent; number 4 is traced on the coast of Ireland; number 7 originated northeast of the Bahamas; number 10 appeared in the Gulf of Saint Lawrence; and number 13 developed near Charleston, South Carolina; the remaining depressions developed over the ocean east of W. 50°, from N. 37° to 50°.

The following presents the characteristics of the depressions traced for the present month, as compared with those traced over the north Atlantic in April, 1885: In April, 1885, the general course of the storms was northeasterly, and the tracks were located within a narrow belt of a few degrees width; during April, 1886, the directions of movement exhibit the greatest diversity, and their positions extend from N. 37° to 55°, in longitude from W. 50° to the European coast. A third noticeable characteristic of the storms of the present month is their exceedingly slow rate of progression.

In three depressions, viz., numbers 1, 4, and 11, pressures below 29.00 (736.5) were reported; in the remaining only moderate or slight energy was displayed. East of W. 40° high westerly winds prevailed from the 2d to the 11th; from the 12th to the 15th the winds were generally light and variable; from the 16th to the 28th prevailing from the east, and the 29th and 30th from the south. The month opened with an area of high pressure, 30.50 (774.6), central in N. 35°, W. 45°, and extending westward to the coast of the United States, where the pressure fell below 29.90 (759.4), in N. 40°, due to a low area central over the Lake region. This extended high area remained central in mid-ocean, between N. 30° and 40°, until the 11th, when it moved northeastward and was central off the coast of the British Isles on the 15th, with pressure 30.50 (774.6); from this date to the 18th, inclusive, it extended westward to the thirtieth meridian. On the 10th an area of high pressure passed off the coast of the United States, and on the 11th the pressure was above 30.00 (762.2) over the whole Atlantic between N. 30° and 48°; on the 12th the high area was central near N. 40°, W. 60°, where pressures ranging from 30.70 (779.7) to 30.80 (782.2) were reported, and on the 13th extended eastward to the meridian of W. 50°; on the 14th to W. 45°; on the 15th to W. 40°; and on the 16th joined the high area above described off the British Isles, giving continuously high pressures from America to Europe. On the 17th and 18th the development of depressions numbers 6 and 7 broke this extensive area of high pressure, which then rapidly disappeared. By the 20th low pressure had overspread the whole ocean, except off the coast of the United States, being lowest in the mid-Atlantic, where 29.50 (749.2) was reported. This generally extended low area continued, with falling barometer, from this date to the close of the month, when the pressure at the centre of depression number 11 was reported below 29.00 (736.5).

The following are brief descriptions of the depressions charted:

1.—This storm was the most severe of any occurring during the month, the pressure at the centre ranging from 28.10 (713.7) to 28.75 (730.2). With no indication of its formation on the morning of March 31st, it appeared suddenly near N. 47°, W. 32°, during the afternoon of that date and blew with terrific violence. The hurricane moved northeastward, and at 12 noon (Greenwich time) of the 2d is charted off the northwest coast of the British Isles.

The following special reports describe its formation and severity:

Capt. J. W. Jones, of the s. s. "Chicago," in N. 46° 40′, W. 32°, reports: "At noon March 31st, every appearance of a severe storm, the whole sky being of leaden hue, wind increasing to a hurricane, and barometer falling rapidly, reaching 29.28 (743.7) at 5 p. m.; the wind blew in severe gusts from wsw.; at 6 p. m. wind suddenly shifted to nw., blowing tremendously, and terrific sea running; moderated towards midnight, barometer rising." The s. s. "Lord Clive," P. Urquhart, commanding, at 11.30 p. m. (Greenwich mean time) reports wind suddenly increased from an ordinary gale of force about 10 to a terrific hurricane from the nnw., with barometer at 28.20 (716.3), which commenced to rise at once. The hurricane lasted